

THE DISTRIBUTION OF MYRICA FAYA AND OTHER SELECTED PROBLEM
EXOTICS WITHIN HAWAII VOLCANOES NATIONAL PARK*

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Myrica faya was introduced to the Hawaiian Islands sometime in the late 1800's. In the mid-1940's the Territorial government had recognized the plant as an aggressive weed and a threat to pasture land. Intense eradication measures and bio-control efforts were instigated by the Territorial and State governments throughout the years, but by 1962 infestation had affected over 21,000 acres with over 80% of the acreage situated on Hawai'i Island. Recently, M. faya has come of interest to Hawaii Volcanoes National Park as a possible threat to native forest systems, and is now being evaluated for various control methods.

A survey of M. faya distribution within the Park was undertaken during a seven-week period from December 1977 to January 1978. Data collection was accomplished through direct field observation, helicopter surveillance, and to a lesser degree aerial photographs.

Findings revealed that M. faya distribution constitutes a horizontal band between 2200 feet and 4000 feet elevation from Namakanipaio southeast to Panau. Infested areas were mapped and estimated densities established. Information concerning dispersal mechanism, germination rates, control measures, and habitat diversity are noted. Other aggressive exotics were recorded as observed during M. faya mapping.

M. faya was detected to be a very formidable foe to the native ecosystems within the Park. The ability of this tree to cover large areas within a matter of years is recorded. A realistic approach coupled with applicable research is needed in an effort to understand and control this problem.